

CLAIMS

1. A wastewater treatment apparatus that treats a wastewater containing persistent substances comprising:
 - 5 a wastewater treatment bath for treating the wastewater;
an oxidizing reagent adding unit for adding an oxidizing reagent in the wastewater treatment bath; and
an alkaline reagent adding unit for adding an alkaline
10 reagent in the wastewater treatment bath.
2. A wastewater treatment apparatus that treats a wastewater containing persistent substances comprising:
 - 15 a wastewater treatment bath for treating the wastewater;
an oxidizing reagent adding unit for adding an oxidizing reagent in the wastewater treatment bath; and
an ultraviolet treatment unit for irradiating an ultraviolet ray.
20
3. The wastewater treatment apparatus according to claim 2, wherein an alkaline reagent adding unit for adding an alkaline reagent in the wastewater treatment bath is provided.
25
4. The wastewater treatment apparatus according to claim 1 or 2, wherein an acid treatment bath having an acid adding unit for adding an acid is provided on the back stream side of the wastewater treatment bath.
30
5. The wastewater treatment apparatus according to claim 1 or 2, wherein a concentration ratio of (oxidizing reagent carried-in effective oxygen amount (mg/L))/COD

concentration in wastewater (mg/L)) in the wastewater treatment bath falls within a range from 10 to 0.7.

5 6. The wastewater treatment apparatus according to claim 2, wherein a concentration ratio of (oxidizing reagent carried-in effective oxygen amount (mg/L))/COD concentration in wastewater (mg/L)) in the ultraviolet treatment unit falls within a range from 20 to 0.5.

10 7. The wastewater treatment apparatus according to claim 2, wherein a pH of the wastewater treatment bath falls within a range from 7 to 12.

15 8. The wastewater treatment apparatus according to claim 4, wherein a pH of the wastewater treatment bath falls within a range from 2 to 6.

20 9. The wastewater treatment apparatus according to claim 2, wherein an activated carbon bath and a neutralizing bath are provided on the back stream side of the ultraviolet treatment unit.

25 10. The wastewater treatment apparatus according to claim 2, wherein a pH adjusting unit is provided on the front stream side of the ultraviolet treatment unit.

30 11. The wastewater treatment apparatus according to claim 2, wherein a reducing bath is provided on the back stream side of the ultraviolet treatment unit.

12. The wastewater treatment apparatus according to claim 11, wherein an aeration bath is provided on the back stream side of the reducing bath.

13. The wastewater treatment apparatus according to any one of claims 1 to 12, wherein an activated carbon absorbing unit for removing organic materials and/or a
5 filtering unit for removing suspended matters in the wastewater is provided as a pre-processing unit.